

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

05-05-2004

To:

HEINÄNEN OY
ANNINKATU 31-33 C
FIN-00100 HELSINKI
FinlandWRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY
EXAMINING AUTHORITY

(PCT Rule 66)

2.7.2004

Date of mailing
(day/month/year)

03-05-2004

Applicant's or agent's file reference

104067 pj/ha

REPLY DUE

within 60 days from
the above date of mailing

International application No.

PCT/FI 2003/000508

International filing date (day/month/year)

23-06-2003

Priority date (day/month/year)

24-06-2002

International Patent Classification (IPC) or both national classification and IPC

G02B 6/42

Applicant

Nokia Oyj et al

1. ☐ The written opinion established by the International Searching Authority:
☐ is ☐ is not
considered to be a written opinion of the International Preliminary Examining Authority.
2. This first (first, etc.) opinion contains indications relating to the following items:
- ☒ Box No. I Basis of the opinion
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.
- When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).
- How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.
- Also** For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.
For an informal communication with the examiner, see Rule 66.6.
For an additional opportunity to submit amendments, see Rule 66.4.
- If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is: 24-10-2004

Name and mailing address of the IPEA/SE

Patent- och registreringsverket
Box 5055

S-102 42 STOCKHOLM

Facsimile No. 46 8 667 72 88

Authorized officer

Magnus Westöb /itw

Telephone No. 46 8 782 25 00

Form PCT/IPEA/408 (cover sheet) (January 2004)

BEST AVAILABLE COPY

**WRITTEN OPINION OF THE
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY**

International application No.

/FI 2003/000508

Box No. 1 Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed.")*:

☒ the international application as originally filed/furnished
☐ the description:

pages _____ as originally filed/furnished
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

☐ the claims:

pages _____ as originally filed/furnished
 pages _____ as amended (together with any statement) under Article 19
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

☐ the drawings:

pages _____ as originally filed/furnished
 pages _____ received by this Authority on _____
 pages _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing (*specify*): _____
☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing (*specify*): _____
☐ any table(s) related to the sequence listing (*specify*): _____

**WRITTEN OPINION OF THE
INTERNATIONAL PRIOR ART EXAMINING AUTHORITY**

International application No.

PCT/JP 2003/000508

**Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)

Claims

Claims

Inventive step (IS)

Claims

Claims

Industrial applicability (IA)

Claims

Claims

1, 2, 10**2. Citations and explanations:**

Cited document D: US 5940564 A

Document D is cited as a document of the category "X" in the International Search Report.

Document D discloses an optoelectronic component 14,52 and a support structure 66 having a hole, see especially figure 3. An alignment feature 62 is arranged on the surface of the component, and it is mentioned in the description that this feature may be any passive alignment feature known in the alignment art (col. 14, lines 16-20). The use of stud bumps as alignment feature, as defined in the independent claims 1 and 10 in the International Application, is deemed trivial. Document D discloses that the alignment feature is arranged along the periphery of the hole, thus aligning the component to the hole. Thus claims 1 and 10 are deemed to lack an inventive step.

It is evident from figure 3 in document D that the outer surface of the alignment feature is arranged against the hole walls. Thus claim 2 is deemed to lack an inventive step.